

an annular outer surface extending between said first and second sealing surfaces and spaced from said annular inner surface to form an annular column section of material extending substantially perpendicular between said first and second annular beam sections thereto; and

one of said annular inner and outer surfaces having annular recess extending in a substantially radial direction to at least partly define an effective minimum width of said annular column section,

at least a part of said first sealing surface of said first raised portion and at least a part of second sealing surface of said second raised portion being axially aligned with said annular column section, said first and second non-sealing surfaces being axially aligned with said annular recess and extending radially from said one of said annular inner and outer surfaces having said annular recess.

Please cancel claim 3 without prejudice.

Please replace claim 4 with the following once amended version:

(Amended) The metallic seal according to claim 1, wherein said first and second sealing surfaces are located axially over only said annular column section.

REMARKS

In the July 6, 2001 Office Action, all of the claims stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response, Applicant has amended independent claim 1 to distinguish them from the prior art. Also Applicant has amended independent claim 1 to correct an error in line 5 of


original claim 1, i.e., "first" should have been -- second--. Claim 4 has been amended in view of the amendments of claim 1. Finally, Applicant has canceled dependent claim 3. Thus, claims 1, 2 and 4-23 are pending, with claim 1 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of the above amendments and the following comments.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages that begin with the caption "**MARKED-UP VERSION OF AMENDMENTS**" (Pages 6 and 7) show the changes made to the claims by the current amendment.

Rejections - 35 U.S.C. § 102

In paragraphs 1 and 2 of the Office Action, claim 1 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,033,582 (Creavy). In response, Applicant has amended independent claim 1 to clearly define the present invention over the Creavy patent.

In particular, independent claim 1 has been amended to include the limitations of dependent claim 3. Specifically, independent claim 1 now clearly recite that at least part of the first and second sealing surfaces of the first and second raised portions are axially aligned with the annular column section. Clearly this arrangement is **not** disclosed or suggested by the Creavy patent. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each and every element of the claim within the reference. Therefore, Applicant respectfully submits that claim 1, as now amended, does not anticipate independent claim 1. Withdrawal of this rejection is respectfully requested.



Rejections - 35 U.S.C. § 103


In paragraphs 3 and 4 of the Office Action, claims 1-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,042,121 (Ma et al.) in view of U.S. Patent No. 3,012,802 (Waite). In response, Applicant has amended independent claims 1 to clearly define the present invention over the prior art of record.

More specifically, independent claim 1 now clearly recites that:

1. at least part of the first and second sealing surfaces of the first and second raised portions are axially aligned with the annular column section; and
2. the first and second non-sealing surfaces are axially aligned with the annular recess and extends radially from the one of the annular inner and outer surfaces having said annular recess.

Clearly this arrangement is ***not*** disclosed or suggested by the combination of the Ma et al. patent and the Waite patent, or any other prior art of record. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does ***not*** make the modification obvious, unless the prior art ***suggests*** the desirability of the modification. *In re Laskowski*, 871 F.2d 115, 10 USPQ2d 1397 (Fed. Cir. 1989). In fact, both the ***suggestion*** and the ***expectation*** of success must be found in the prior art, ***not*** in Applicants' disclosure. *In re O'Farrell*, 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988). Accordingly, the prior art of record lacks any suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement of the metallic seal. Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

In particular, neither the metallic seal of the Ma et al. patent nor the metallic seal of the Waite patent has ***first and second raised portions are axially aligned with the annular column section*** as required by claim 1. While the metallic seal of the Waite patent was cited



to show raised portions. The raised portions of the metallic seal of the Waite patent are *not axially aligned with the annular column section*. Thus, there is no suggestion or expectation of success for combining the patents to create *first and second raised portions are axially aligned with the annular column section* as required by claim 1. Moreover, claim 1 requires the first and second non-sealing surfaces to be *axially aligned with the annular recess* and *extends radially from the annular surface having the annular recess*. Again, neither the metallic seal of the Ma et al. patent nor the metallic seal of the Waite patent has this arrangement. Thus, there is no suggestion or expectation of success for combining these patents to create this arrangement.

Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

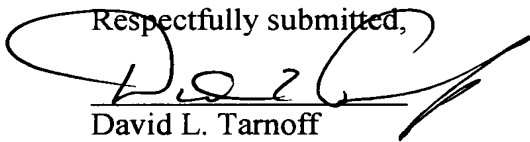
Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicant believes that these references do not render the claimed invention obvious.

* * *

In view of the foregoing amendment and comments, Applicant believes that claims 1, 2 and 4-23 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,


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MARKED-UP VERSION OF AMENDMENTS

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Amended) A metallic seal comprising:

a first annular beam section having a first non-sealing surface and a first raised portion, with said first raised portion having a first annular sealing surface facing in a first axial direction to contact a first member for creating a first annular sealing dam therebetween;

a second annular beam section having a second non-sealing surface and a second first raised portion, with said second raised portion having a second annular sealing surface facing in a second axial direction, which is opposite to said first axial direction, to contact a second member for creating a second annular sealing dam therebetween;

an annular inner surface extending between said first and second sealing surfaces to form a central passageway;

an annular outer surface extending between said first and second sealing surfaces and spaced from said annular inner surface to form an annular column section of material extending substantially perpendicular between said first and second annular beam sections thereto; and

one of said annular inner and outer surfaces having annular recess extending in a substantially radial direction to at least partly define an effective minimum width of said annular column section,

at least a part of said first sealing surface of said first raised portion and at least a part of second sealing surface of said second raised portion being axially aligned with said annular column section, said first and second non-sealing surfaces being axially aligned with said



annular recess and extending radially from said one of said annular inner and outer surfaces
having said annular recess.

Please cancel claim 3 without prejudice.

Claim 4 has been amended as follows:

9 / 4. (Amended) The metallic seal according to claim 1, wherein
said first and second sealing surfaces are located axially over only said annular
column section.

